TEXT OF PROPOSED AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE U.S. AND THE UNITED MEXICAN STATES CONCERNING PEACEFUL USES OF NUCLEAR ENERGY

#### **MESSAGE**

FROM

## THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

THE TEXT OF AN AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE UNITED MEXICAN STATES FOR COOPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY, PURSUANT TO 42 U.S.C. 2153(d); AUG. 1, 1946, CH. 724, TITLE I, SEC. 123 (AS AMENDED BY PUBLIC LAW 109–401, SEC. 104(e)); (120 STAT. 2734)



MAY 8, 2018.—Message and accompanying papers referred to the Committee on Foreign Affairs and ordered to be printed

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WASHINGTON: 2018

To the Congress of the United States:

I am pleased to transmit to the Congress, pursuant to subsections 123 b. and 123 d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153(b), (d)) (the "Act"), the text of an Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy (the "Agreement"). I am also pleased to transmit my written approval, authorization, and determination concerning the Agreement and an unclassified Nuclear Proliferation Assessment Statement (NPAS) concerning the Agreement. In accordance with section 123 of the Act, a classified annex to the NPAS, prepared by the Secretary of State, in consultation with the Director of National Intelligence, summarizing relevant classified information, will be submitted to the Congress separately. A joint memorandum submitted to me by the Secretaries of State and Energy and a letter from the Chairman of the Nuclear Regulatory Commission stating the views of the Commission are also enclosed. An addendum to the NPAS containing a comprehensive analysis of the export control system of Mexico with respect to nuclear-related matters, including interactions with other countries of proliferation concern and the actual or suspected nuclear, dualuse, or missile-related transfers to such countries, pursuant to section 102A(w) of the National Security Act of 1947 (50 U.S.C. 3024(w)), is being submitted separately by the Director of National Intelligence.

The Agreement has been negotiated in accordance with the Act and other applicable law. In my judgment, it meets all applicable statutory requirements and will advance the nonproliferation and

other foreign policy interests of the United States.

The Agreement contains all of the provisions required by subsection 123 a. of the Act. It provides a comprehensive framework for peaceful nuclear cooperation with Mexico based on a mutual commitment to nuclear nonproliferation. It would permit the transfer of material, equipment (including reactors), components, and information for nuclear research and nuclear power production. It would not permit the transfer of Restricted Data or sensitive nuclear technology. Any special fissionable material transferred could only be in the form of low enriched uranium, with the exception of small quantities of material for use in samples, standards, detectors, or targets or for such other purposes as the parties may agree.

Through the Agreement, Mexico would affirm its intent to rely on existing international markets for nuclear fuel services involving sensitive nuclear technologies (i.e. enrichment and reprocessing), and the United States would affirm its intent to support these international markets and would agree to endeavor to take necessary and feasible actions to ensure a reliable supply of low en-

riched uranium fuel to Mexico.

The Agreement has a term of 30 years, although it can be terminated by either party on one year's advance written notice. In the event of termination or expiration of the Agreement, key non-proliferation conditions and controls will continue in effect as long as any material, equipment, or component subject to the Agreement remains in the territory of the party concerned or under its jurisdiction or control anywhere, or until such time as the parties agree that such material, equipment, or components are no longer usable for any nuclear activity relevant from the point of view of safeguards.

Mexico has a strong track record on nonproliferation and has consistently reiterated its commitment to nonproliferation. It is a party to the Treaty on the Non-Proliferation of Nuclear Weapons and has concluded a Comprehensive Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency. Mexico has a strong system of nuclear export controls and has harmonized its controls with the Nuclear Suppliers Group guidelines. A more detailed discussion of Mexico's domestic civil nuclear activities and its nuclear nonproliferation policies and practices is pro-

vided in the NPAS and its classified annex.

I have considered the views and recommendations of the interested departments and agencies in reviewing the Agreement and have determined that its performance will promote, and will not constitute an unreasonable risk to, the common defense and security. Accordingly, I have approved the Agreement and authorized its execution and urge that the Congress give it favorable consideration.

This transmission shall constitute a submittal for purposes of both subsections 123 b. and 123 d. of the Act. My Administration is prepared to begin immediately consultations with the Senate Foreign Relations Committee and the House Foreign Affairs Committee, as provided in subsection 123 b. Upon completion of the 30 days of continuous session review provided for in subsection 123 b., the 60 days of continuous session review provided for in subsection 123 d. shall commence.

Donald J. Trump.

THE WHITE HOUSE, May 8, 2018.

#### THE WHITE HOUSE

WASHINGTON

April 30, 2018

Presidential Determination No. 2018-06

MEMORANDUM FOR THE SECRETARY OF STATE
THE SECRETARY OF ENERGY

SUBJECT:

Presidential Determination on the Proposed Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy

I have considered the proposed Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy (the "Agreement"), along with the views, recommendations, and statements from interested departments and agencies.

I have determined that the performance of the proposed Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security.

By the authority vested in me as President by the Constitution and the laws of the United States, I hereby approve the proposed Agreement and authorize the Secretary of State to arrange for its execution, pursuant to section 123 b. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2153(b)).

The Secretary of State is authorized and directed to publish this determination in the Federal Register.

# AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE UNITED MEXICAN STATES FOR COOPERATION IN PEACEFUL USES OF NUCLEAR ENERGY

The Government of the United States of America and the Government of the United Mexican States (hereinafter referred to individually as "Mexico" and the "United States" and collectively as the "Parties");

MINDFUL of their respective rights and obligations under the Treaty on the Nonproliferation of Nuclear Weapons ("NPT"), done at London, Moscow and Washington on July 1, 1968, to which both the United States and Mexico are parties;

ALSO MINDFUL of their respective rights and obligations under the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), done at Mexico City on February 14, 1967, and its Additional Protocols I and II, as applicable:

**REAFFIRMING** their commitment to ensuring that the international development and use of nuclear energy for peaceful purposes are carried out under arrangements that will to the maximum possible extent further the objectives of the NPT;

AFFIRMING their desire to promote universal adherence to the NPT;

AFFIRMING their support for the International Atomic Energy Agency ("IAEA") and its safeguards system, including the Additional Protocol (INFCIRC/540);

AFFIRMING their commitment to the Guidelines of the Nuclear Suppliers Group;

**DESIRING** to cooperate in the development of peaceful uses of nuclear energy;

RECALLING their existing cooperation through the IAEA under project and supply agreements (INFCIRCs 52, 82, 102, 203, and 825);

MINDFUL that peaceful nuclear activities must be undertaken with a view to protecting the international environment from radioactive, chemical, and thermal contamination;

**AFFIRMING** in particular the goal of pursuing the safe, secure, and environmentally sustainable development of civil nuclear energy for peaceful purposes in a manner that supports nuclear nonproliferation and international safeguards;

AFFIRMING the intent of Mexico to rely on existing international markets for nuclear fuel services involving sensitive nuclear technologies as a solution for peaceful, safe, and secure uses of civilian nuclear energy, while recognizing Mexico may wish in the future to engage in domestic development of nonsensitive nuclear technologies involved in nuclear fuel services, and affirming the intent of the United States to support these international markets in order to ensure reliable nuclear fuel supply for Mexico;

Have agreed as follows:

#### **ARTICLE 1 - DEFINITIONS**

For the purposes of this Agreement, including the Annex:

- (1) "Annex" means the annex to this Agreement, which is an integral part of this Agreement;
- (2) "Byproduct material" means any radioactive material (except special fissionable material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special fissionable material;
- (3) "Component" means a component part of equipment or other item, so designated by agreement of the Parties;
- (4) "Conversion" means any of the normal operations in the nuclear fuel cycle preceding fuel fabrication and excluding enrichment by which uranium is transformed from one chemical form to another – for example, from UF6 to UO2 or from uranium oxide to metal;

- (5) "Decommissioning" means the actions taken at the end of a facility's useful life to retire the facility from service in a manner that provides adequate protection for the health and safety of the decommissioning workers and the general public, and for the environment. These actions can range from closing down the facility and a minimal removal of nuclear material coupled with continuing maintenance and surveillance to a complete removal of residual radioactivity in excess of levels acceptable for unrestricted use of the facility and its site;
- (6) "Equipment" means any reactor, other than one designed or used primarily for the formation of plutonium or uranium 233, reactor pressure vessel (including closure heads), reactor calandria, complete reactor control rod drive system, reactor primary coolant pump, online reactor fuel charging and discharging machine, or any other item so designated by agreement of the Parties;
- "High enriched uranium" means uranium enriched to twenty percent or greater in the isotope 235;
- (8) "Information" means scientific, commercial, or technical data or information in any form that is designated by agreement of the Parties or their authorities to be provided or exchanged under this Agreement;
- (9) "Low enriched uranium" means uranium enriched to less than twenty percent in the isotope 235;
- (10) "Major critical component" means any part or group of parts essential to the operation of a sensitive nuclear facility:
- (11) "Material" means nuclear material, byproduct material, radioisotopes other than byproduct material, moderator material, or any other such substance so designated by agreement of the Parties;
- (12) "Moderator material" means heavy water or graphite or beryllium of a purity suitable for use in a reactor to slow down high velocity neutrons and increase the likelihood of further fission, or any other such material so designated by agreement of the Parties;
- (13) "Nuclear material" means source material or special fissionable material;

- (14) "Peaceful purposes" include the use of information, material, equipment, and components in such fields as research, power generation, medicine, agriculture, and industry but do not include use in, research on, or development of any nuclear explosive device, or any military purpose;
- (15) "Person" means any individual or any entity subject to the jurisdiction of either Party, but does not include the Parties to this Agreement;
- (16) "Reactor" means any apparatus, other than a nuclear weapon or other nuclear explosive device, in which a self-sustaining fission chain reaction is maintained by utilizing uranium, plutonium, or thorium or any combination thereof;
- (17) "Restricted Data" means all data concerning (1) design, manufacture, or utilization of nuclear weapons, (2) the production of special fissionable material, or (3) the use of special fissionable material in the production of energy, but shall not include data of a Party that it has declassified or removed from the category of Restricted Data. For the purposes of this Agreement, it is the understanding of the Parties that all information on the use of special fissionable material in the production of energy from standard civilian reactors has been declassified or removed from the category of Restricted Data;
- (18) "Sensitive nuclear facility" means any facility designed or used primarily for uranium enrichment, reprocessing of nuclear fuel, heavy water production, or fabrication of nuclear fuel containing plutonium;
- (19) "Sensitive nuclear technology" means any information (including information incorporated in equipment or an important component) that is not in the public domain and that is important to the design, construction, fabrication, operation, or maintenance of any sensitive nuclear facility, or any other such information that may be so designated by agreement of the Parties;

- (20) "Source material" means uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other material containing one or more of the foregoing in such concentration as the Board of Governors of the IAEA shall from time to time determine; and such other material as the Board of Governors of the IAEA shall from time to time determine or as may be agreed by the appropriate government authorities of both Parties. Any determination by the Board of Governors of the IAEA under Article XX of the IAEA's Statute or otherwise that amends the list of materials considered to be source material shall only have effect under this Agreement when both Parties to this Agreement have informed each other in writing that they accept such an amendment; and
- (21) "Special fissionable material" means plutonium; uranium 233; uranium enriched in the isotopes 233 or 235; any material containing one or more of the foregoing; and such other material as the Board of Governors of the IAEA shall from time to time determine or as may be agreed by the appropriate government authorities of both Parties, but the term special fissionable material does not include source material. Any determination by the Board of Governors of the IAEA under Article XX of the IAEA's Statute or otherwise that amends the list of materials considered to be special fissionable material shall only have effect under this Agreement when both Parties to this Agreement have informed each other in writing that they accept such an amendment.

#### **ARTICLE 2 - SCOPE OF COOPERATION**

- The Parties shall cooperate in the use of nuclear energy for peaceful purposes in accordance with the provisions of this Agreement and their applicable treaties, national laws, regulations, and license requirements.
- 2. The Parties may pursue cooperation in all relevant areas to include, but not limited to, the following:
  - (a) Research, development, design, construction, maintenance, and training on operation of nuclear power plants, small and mediumsized nuclear reactors or research reactors, and non-power applications of nuclear energy;

- (b) Manufacture and supply of nuclear fuel elements to be used in nuclear power plants, small and medium-sized nuclear reactors, or research reactors;
- (c) Nuclear fuel cycle activities and materials including radioactive waste management;
- (d) Production and application of radioactive isotopes in industry, agriculture, and medicine;
- (e) Nuclear safety, radiation protection, environmental protection, and emergency preparedness;
- (f) Nuclear safeguards and physical protection;
- (g) Exchange of best practices for nuclear policy development; and
- (h) Training and development of human resources in the nuclear sector.
- 3. Transfer of information, material, equipment, and components under this Agreement may be undertaken directly between the Parties or through authorized persons. Such transfers shall be subject to this Agreement and to such additional terms and conditions as may be agreed by the Parties.

#### **ARTICLE 3 - TRANSFER OF INFORMATION**

- 1. Information concerning the use of nuclear energy for peaceful purposes may be transferred under this Agreement. Transfers of information may be accomplished through various means, including reports, data banks, computer programs, conferences, visits, and assignments of staff to facilities. Fields that may be covered may include, but shall not be limited to, the following:
  - (a) Research on development, design, construction, operation, maintenance, and use of reactors, reactor experiments, and decommissioning;
  - (b) The use of material in physical and biological research, medicine, agriculture, and industry;

- (c) Fuel cycle studies of ways to meet future world-wide civil nuclear needs, including multilateral approaches to guaranteeing nuclear fuel supply and appropriate techniques for management of nuclear wastes:
- (d) Safeguards and physical protection of material, equipment, and components;
- Health, safety, and environmental considerations related to the foregoing; and
- (f) Assessing the role nuclear power may play in national energy plans.
- 2. This Agreement does not require the transfer of any information that the Parties are not permitted under their respective treaties, national laws, and regulations to transfer.
- 3. Restricted Data and sensitive nuclear technology shall not be transferred under this Agreement.
- 4. The Parties agree that any information transferred or otherwise received as a result of the operation of this Agreement which at the time of transfer or receipt is designated by the supplier Party to be proprietary or confidential shall be accorded protection commensurate with the importance assigned to it by the supplier Party as allowed by law within the jurisdiction of the recipient Party. When the recipient Party is required under its law to disclose such information, it shall give advance notice of any such disclosure to the supplier Party.

## ARTICLE 4 - TRANSFER OF MATERIAL, EQUIPMENT AND COMPONENTS

- Material, equipment, and components may be transferred for applications consistent with this Agreement. Any special fissionable material transferred to Mexico under this Agreement shall be low enriched uranium, except as provided in paragraph 4. Sensitive nuclear facilities and major critical components shall not be transferred under this Agreement.
- 2. Low enriched uranium may be transferred, including by sale or lease, for use as fuel in reactors and reactor experiments, for conversion or fabrication, or for such other purposes as may be agreed by the Parties.

- 3. The quantity of special fissionable material transferred under this Agreement shall not at any time be in excess of that quantity the Parties agree is necessary for any of the following purposes: use in the loading of reactors or in reactor experiments; the reliable, efficient and continuous operation of reactors or conduct of reactor experiments; the storage of special fissionable material necessary for the efficient and continuous operation of reactors or conduct of reactor experiments; and the accomplishment of such other purposes as may be agreed by the Parties.
- 4. Small quantities of special fissionable material may be transferred for use as samples, standards, detectors, or targets or for such other purposes as the Parties may agree. Transfers pursuant to this paragraph shall not be subject to the quantity limitations in paragraph 3.
- 5. The United States shall endeavor to take such actions as are necessary and feasible to ensure a reliable supply of nuclear fuel to Mexico, including the export of nuclear fuel on a timely basis during the period of this Agreement. The United States shall also give serious consideration to taking such actions as are feasible to assist Mexico in safe and secure management, storage, transport, and disposition of irradiated special fissionable material produced through the use of material or equipment transferred pursuant to this Agreement.

#### **ARTICLE 5 - STORAGE AND RETRANSFERS**

- Plutonium and uranium 233 (except as contained in irradiated fuel elements), and high enriched uranium, transferred pursuant to this Agreement or used in or produced through the use of material or equipment so transferred shall only be stored in a facility to which the Parties agree.
- 2. Material, equipment, and components transferred pursuant to this Agreement, and any special fissionable material or other transuranic elements or tritium produced through the use of any such material or equipment, shall not be transferred to unauthorized persons or, unless the Parties agree, beyond the recipient Party's territorial jurisdiction.
- 3. In order to facilitate management of spent fuel, irradiated nuclear materials, or nuclear-related waste, material transferred or produced through the use of material, equipment, and components transferred pursuant to this Agreement may be transferred to the United States if the United States designates a storage or disposition option. In this event, the Parties shall make appropriate implementing arrangements.

## ARTICLE 6 - REPROCESSING, OTHER ALTERATION IN FORM OR CONTENT, AND ENRICHMENT

- 1. Material transferred pursuant to this Agreement and material used in or produced through the use of material or equipment so transferred shall not be reprocessed unless the Parties agree.
- 2. Plutonium, uranium 233, high enriched uranium, and irradiated source or special fissionable material transferred pursuant to this Agreement or used in or produced through the use of material or equipment so transferred shall not be otherwise altered in form or content, except by irradiation or further irradiation, unless the Parties agree.
- 3. Uranium transferred pursuant to this Agreement or used in or produced through the use of any material or equipment so transferred shall not be enriched after transfer unless the Parties agree.

#### **ARTICLE 7 - PHYSICAL PROTECTION**

- 1. Adequate physical protection shall be maintained with respect to any nuclear material and equipment transferred pursuant to this Agreement and any special fissionable material used in or produced through the use of material or equipment so transferred.
- 2. To comply with the requirement in paragraph 1, each Party shall apply at a minimum measures in accordance with (i) levels of physical protection equivalent to the recommendations published in IAEA document INFCIRC/225/Rev.5 entitled "Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities" and in any subsequent revisions of that document accepted by the Parties, and (ii) the provisions of the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, open for signature at Vienna and New York on March 3, 1980, as amended on July 8, 2005, as well as any subsequent amendments to that Convention that enter into force for both Parties.
- 3. The adequacy of physical protection measures maintained pursuant to this Article shall be subject to visits and consultations between the Parties from time to time and whenever either Party is of the view that revised measures may be required to maintain adequate physical protection.

4. The Parties shall keep each other informed through diplomatic channels of those agencies or authorities having responsibility for ensuring that levels of physical protection for nuclear material in their territory or under their jurisdiction or control are adequately met and having responsibility for coordinating response and recovery operations in the event of unauthorized use or handling of material subject to this Article. The Parties shall inform each other through diplomatic channels, as well, of the designated points of contact to cooperate on matters of out-of-country transportation and other matters of mutual concern.

#### **ARTICLE 8 - NO EXPLOSIVE OR MILITARY APPLICATION**

Material, equipment, and components transferred pursuant to this Agreement and material used in or produced through the use of any material, equipment, or components so transferred shall not be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any military purpose.

#### **ARTICLE 9 - SAFEGUARDS**

- Cooperation under this Agreement shall require the application of IAEA safeguards:
  - (a) with respect to all nuclear material in all nuclear activities within the territory of Mexico, under its jurisdiction or carried out under its control anywhere. Implementation of a safeguards agreement concluded pursuant to Article III (4) of the NPT shall be considered to fulfill this requirement; and
  - (b) within the territory of the United States, in accordance with the provisions of the agreement between the United States and the IAEA for the applications of safeguards in the United States, as referenced in paragraph 3 of this Article.
- 2. Nuclear material transferred to Mexico pursuant to this Agreement and any nuclear material used in or produced through the use of material, equipment, or components so transferred shall be subject to safeguards in accordance with the Agreement between the United Mexican States and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Treaty on the Non-proliferation of Nuclear Weapons, done at Mexico City on September 27, 1972, which entered into force on September 14, 1973, and the Additional Protocol thereto done at Vienna on March 29, 2004, which entered into force on March 4, 2011.

- 3. Nuclear material transferred to the United States pursuant to this Agreement and any nuclear material used in or produced through the use of any material, equipment, or components so transferred shall be subject to the Agreement between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States of America, done at Vienna on November 18, 1977, which entered into force on December 9, 1980, and the Additional Protocol thereto, done at Vienna on June 12, 1998, which entered into force on January 6, 2009.
- 4. If either Party becomes aware of circumstances that demonstrate that the IAEA for any reason is not or will not be applying safeguards in accordance with the agreements with the IAEA referred to in paragraph 2 or paragraph 3, to ensure effective continuity of safeguards the Parties shall consult and immediately enter into arrangements with the IAEA or between themselves that conform with IAEA safeguards principles and procedures, that provide assurance equivalent to that intended to be secured by the system they replace, and that conform with the coverage required by paragraph 2 or paragraph 3, as applicable.
- 5. Each Party shall take such measures as are necessary to maintain and facilitate the application of safeguards applicable to it provided for under this
- 6. Each Party shall establish and maintain a system of accounting for and control of nuclear material transferred pursuant to this Agreement and nuclear material used in or produced through the use of any material, equipment, or components so transferred. The procedures for this system shall be comparable to those set forth in IAEA document INFCIRC/153 (Corrected), or in any revision of that document accepted by the Parties.
- 7. Upon the request of either Party, the other Party shall report or permit the IAEA to report to the requesting Party on the status of all inventories of material subject to this Agreement.

#### **ARTICLE 10 - MULTIPLE SUPPLIER CONTROLS**

If any agreement between either Party and another nation or group of nations provides such other nation or group of nations rights equivalent to any or all of those set forth under Article 5 or Article 6 with respect to material, equipment, or components subject to this Agreement, the Parties may, upon request of either of them, agree that the implementation of any such rights will be accomplished by such other nation or group of nations.

## ARTICLE 11 - CESSATION OF COOPERATION AND RIGHT OF RETURN

- 1. If either Party at any time following entry into force of this Agreement:
  - (a) does not comply with the provisions of Articles 5, 6, 7, 8, or 9; or
  - (b) terminates, abrogates, or materially violates a safeguards agreement with the IAEA;

the other Party shall have the rights to cease further cooperation under this Agreement and to require the return of any material, equipment, and components transferred under this Agreement and any special fissionable material produced through their use.

- 2. If Mexico following entry into force of this Agreement detonates a nuclear explosive device, the United States shall have the same rights as specified in paragraph 1.
- 3. If the United States detonates a nuclear explosive device using material, equipment or components transferred pursuant to this Agreement or nuclear material used in or produced through the use of such items, Mexico shall have the same rights as specified in paragraph 1.
- 4. If either Party exercises its rights under this Article to require the return of any material, equipment, or components, it shall promptly, after removal from the territory of the other Party, reimburse the other Party for the fair market value of such material, equipment, or components.

## ARTICLE 12 - CONSULTATIONS, REVIEW, AND ENVIRONMENTAL PROTECTION

- 1. The Parties undertake to consult at the request of either Party regarding the implementation of this Agreement and the development of further cooperation in the field of peaceful uses of nuclear energy.
- 2. The Parties shall consult, with regard to activities under this Agreement, to identify the international environmental implications arising from such activities and shall cooperate in protecting the international environment from radioactive, chemical, or thermal contamination arising from peaceful nuclear activities under this Agreement and in related matters of health and safety.

#### **ARTICLE 13 - SETTLEMENT OF DISPUTES**

The Parties shall address any dispute concerning the interpretation or application of this Agreement through negotiation or any other mutually agreed upon peaceful means of dispute settlement.

#### ARTICLE 14 - ACCOUNTING AND ADMINISTRATIVE ARRANGEMENT

- 1. The appropriate government authorities of both Parties shall establish an Administrative Arrangement to ensure the effective implementation of this Agreement.
- 2. For purposes of this Agreement, each Party shall be able at all times to account for all nuclear material transferred pursuant to this Agreement and nuclear material used in or produced through the use of any material, equipment, or components so transferred.
- 3. Each Party shall establish inventories of all material, equipment, and components subject to this Agreement. Upon the request of either Party, the other Party shall provide a report containing such inventories. To supplement such reporting upon request, either Party shall request and permit the IAEA to report to the requesting Party on the status of all inventories of material, equipment, and components subject to this Agreement.
- 4. The principles of fungibility, proportionality, and equivalence shall apply to nuclear material subject to this Agreement.
- 5. Detailed provisions for implementing paragraphs 2, 3, and 4 shall be set forth in the Administrative Arrangement.

#### ARTICLE 15 - ENTRY INTO FORCE, AMENDMENT, AND DURATION

- 1. This Agreement shall enter into force thirty (30) days after the date of the later note of an exchange of diplomatic notes between the Parties informing each other that they have completed all applicable requirements for entry into force.
- 2. Either Party may propose an amendment to this Agreement by means of written notice through diplomatic channels to the other Party. Amendments to this Agreement shall enter into force according to the procedure stipulated in paragraph 1 of this Article.

- 3. This Agreement shall remain in force for a period of thirty (30) years. This Agreement may be terminated at any time by either Party on one year's written notice to the other Party.
- 4. Notwithstanding the termination or expiration of this Agreement or any cessation of cooperation hereunder for any reason, Articles 5, 6, 7, 8, 9, and 11 and the Annex shall continue in effect so long as any material, equipment, or components subject to these Articles remains in the territory of the Party concerned or under its jurisdiction or control anywhere, or until such time as the Parties agree that such material, equipment, or components are no longer usable for any nuclear activity relevant from the point of view of safeguards.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Agreement.

DONE at Washington, this Tday of Way 2018, in duplicate, in the English and Spanish languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF THE UNITED MEXICAN STATES:

Christopher A. Ford

Gerónimo Gutiériez Fernandez

#### **ANNEX**

During the negotiation of the Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy ("the Agreement") done today, the following understandings, which shall be an integral part of the Agreement, were reached.

#### 1. Coverage of Agreement

- a. Material, equipment, and components transferred from the territory of one Party to the territory of the other Party, whether directly or through a third country or destination, shall be regarded as having been transferred pursuant to the Agreement only upon confirmation, by the appropriate government authority of the recipient Party to the appropriate government authority of the supplier Party, that such material, equipment, or components shall be subject to the Agreement.
- b. Notwithstanding any other provision of the Agreement, material, equipment, and components transferred from the United States to Mexico pursuant to project and supply agreements through the IAEA (INFCIRCs 52, 82, 102, 203, and 825), and special fissionable material produced through the use of such material, equipment, or components, shall not be made subject to the Agreement.
- c. For the purposes of implementing the rights specified in Article 5 and Article 6 of the Agreement with respect to special fissionable material produced through the use of nuclear material transferred pursuant to the Agreement and not used in or produced through the use of equipment transferred pursuant to the Agreement, such rights shall in practice be applied to that proportion of special fissionable material produced that represents the ratio of transferred material used in the production of the special fissionable material to the total amount of material so used, and similarly for subsequent generations.
- d. Material, equipment, and components subject to the Agreement shall no longer be subject to the Agreement if:
  - (1) Such items have been transferred beyond the territory of the receiving Party in accordance with the relevant provisions of the Agreement and are no longer under its jurisdiction or control anywhere;

- (2) In the case of nuclear material, the Parties agree that such nuclear material is no longer usable for any nuclear activity relevant from the point of view of safeguards, taking into account among other factors an IAEA determination, if any, in accordance with the agreement referred to in paragraph 2 or 3 of Article 9 of the Agreement, whichever is applicable; or
- (3) In the case of equipment, components, and material other than nuclear material, it is agreed by the Parties.

#### 2. Safeguards

- a. Any arrangements between the Parties made necessary by the circumstances referred to in paragraph 4 of Article 9 of the Agreement shall include, for the Party applying safeguards (hereinafter "the safeguarding Party"), the rights listed below:
  - (1) To review for the purposes of safeguards and in a timely fashion the design of any equipment transferred pursuant to the Agreement or of any facility that is to use, fabricate, process, or store any material so transferred or any special fissionable material used in or produced through the use of material or equipment so transferred;
  - (2) To require the maintenance and production of records and of relevant reports for the purpose of assisting in ensuring accountability for material transferred pursuant to the Agreement and any nuclear material used in or produced through the use of any material, equipment, or components so transferred; and
  - (3) To designate personnel acceptable to the other Party (hereinafter "the safeguarded Party"), who shall have access to all places and data necessary to inspect any equipment or facility referred to in paragraph 1, to account for the material referred to in paragraph 2, and to install any devices and make such independent measurements as may be deemed necessary to account for such material. The safeguarded Party shall not unreasonably withhold its acceptance of personnel designated by the safeguarding Party under this paragraph. Such personnel shall be accompanied by personnel designated by the safeguarded Party.
- b. The simultaneous application of safeguards with respect to one Party by the IAEA and by the other Party is not intended.

- c. Upon the request of either Party, the other Party shall authorize the IAEA to make available to the Government of the requesting Party information on the implementation of the applicable safeguards agreement with the IAEA within the scope of cooperation under the Agreement.
- d. To the extent consistent with its applicable national legislation and regulations, each Party shall ensure that all information provided under this Section 2 of the Annex by the other Party or the IAEA will not be publicly disclosed, and will be accorded appropriate protections with a view to providing the same level of protection accorded to such information by the other Party or the IAEA. The Parties shall consult regarding the appropriate protections for such information.

#### 3. Byproduct Material

The Parties agree that reporting and exchanges of information on byproduct material subject to the Agreement shall be carried out under the Administrative Arrangement and shall include the following:

- (a) Both Parties shall comply with the provisions as contained in the IAEA document GOV/1999/19/Rev.2, with regard to byproduct material subject to the Agreement.
- (b) With regard to tritium subject to the Agreement, the Parties shall exchange information annually pertaining to its disposition for peaceful purposes consistent with Article 8 of the Agreement.

#### NUCLEAR PROLIFERATION ASSESSMENT STATEMENT

Pursuant to Subsection 123 a, of the Atomic Energy Act of 1954, as Amended, with Respect to the Proposed Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy

#### I. INTRODUCTION

This Nuclear Proliferation Assessment Statement (NPAS) relates to the proposed Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy (the proposed Agreement). The Secretary of State and Secretary of Energy are jointly submitting the proposed Agreement to the President for his approval.

Subsection 123 a. of the Atomic Energy Act of 1954, as amended (the Act), provides that an NPAS be submitted by the Secretary of State to the President on each agreement for cooperation concluded pursuant to that section. Pursuant to subsection 123 a., the NPAS must analyze the consistency of the text of the proposed Agreement with all the requirements of the Act, with specific attention to whether the proposed Agreement is consistent with each of the criteria set forth in that subsection. The NPAS must also address the adequacy of the safeguards and other control mechanisms and the peaceful use assurances contained in the proposed Agreement to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.

With this statutory mandate in mind, this NPAS (a) provides background information on Mexico's civil nuclear program, ongoing U.S.-Mexican civil nuclear cooperation, Mexico's civil nuclear cooperation with other countries, Mexico's nonproliferation policies, and Mexico's export controls (Part II); (b) describes the nature and scope of the cooperation contemplated in the proposed Agreement (Part III); (c) reviews the applicable substantive requirements of the Act and the Nuclear Nonproliferation Act of 1978 (NNPA) and details how they are met by the proposed Agreement (Part IV); and (d) addresses the adequacy of the safeguards and other control mechanisms and the peaceful use assurances contained in the proposed Agreement and sets forth the net assessment and conclusions of the Department of State as contemplated by subsection 123 a. of the Act (Part V).

## II. MEXICO'S NUCLEAR ACTIVITIES AND NONPROLIFERATION POLICIES

#### A. History of Mexican Civil Nuclear Activities

Mexico has one research reactor, two training reactors, and one nuclear power plant. Its nuclear research reactor is the light water TRIGA Mark III. Mexico uses two subcritical reactors, both built in 1968, for experiments and student training. The Chicago Modelo 9000 is a light water reactor owned by the Autonomous University of Zacatecas and administered by the University's Regional Center of Nuclear Studies. The Chicago Modelo 2000 is a light water reactor located

at the National Polytechnic Institute in Mexico City. The nuclear power plant is the Laguna Verde Nuclear Power Plant in Alto Lucero.

Laguna Verde includes two boiling water reactors manufactured and sold by the U.S. company General Electric (GE) and on which construction began in the late 1970s. Reactor 1 began producing power in 1989 and is scheduled to operate until 2029; reactor 2 became commercially operational in 1994 and is scheduled to operate until 2034. They have a combined generation capacity of 1600 MWe. GE provides the fuel for the reactors through Global Nuclear Fuel, a joint venture of GE, Hitachi, and Toshiba.

In recent years, Mexico has discussed expanding its nuclear power capacity, including a proposal to build enough new plants for nuclear power to account for 25 percent of Mexico's available domestic power by 2028. The sharp decline in global gas prices from 2008 to 2010 delayed Mexico's nuclear power growth in the short term, but the Federal Electricity Commission has continued to push for the expansion of the Laguna Verde plant. In 2015, Mexico passed an Energy Transition Law that set targets for clean-energy production at 25 percent of total energy output for 2018, 30 percent for 2021, and 35 percent for 2024. In the 2016 "Development Program for the National Electric System 2016–2030 (PRODESEN)" long-term planning report, the Ministry of Energy includes three nuclear reactors potentially coming online 2028-2030 to push the output of nuclear power to 12 percent of clean energy produced by 2030 (in 2015, nuclear accounted for 4 percent of the power generated by Mexico's energy sector, down from the 6.5 percent charted in 1995). The Government of Mexico also anticipates that its 2014 energy reform laws, which were designed in part to stimulate foreign and private investment in Mexico's energy sector, will also have an impact in encouraging expansion of use of nuclear power.

Between December 2013 and February 2017, there were nine reported incidents of stolen radioactive sources in Mexico. Radioactive sources contain radioactive material, but they do not contain fissionable material necessary to initiate a nuclear chain reaction. In all reported cases, the Mexican Government recovered the sources following each incident and found no evidence that the sources themselves were the targets of the thefts. Either the tool using the source or the vehicle in which it was being transported was believed to be the target. The Government of Mexico has a strong track record of quickly recovering stolen radioactive sources and providing information to the U.S. Government and the public as to the nature of stolen sources and further demonstrates its commitment to nuclear security by voluntarily reporting the incidents to the IAEA's Incident and Trafficking Database program.

#### B. Cooperation with the United States

This is the first bilateral agreement for peaceful nuclear cooperation between the United States and Mexico, but the United States and Mexico have a long history of peaceful nuclear cooperation. Currently, peaceful nuclear cooperation between the two countries is carried out through trilateral Project and Supply Agreements (PSAs) among the United States, Mexico, and the International Atomic Energy Agency (IAEA). The IAEA uses PSAs to facilitate nuclear-related exchanges for research on and development and practical application of peaceful uses of nuclear power. Consistent with domestic law, the United States is able to enter into PSAs to

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engage in peaceful nuclear cooperation under the provisions of the 1959 Agreement for Cooperation between the International Atomic Energy Agency and the United States of America, as amended in 1974, 1980, and 2014 (published on the IAEA website as INFCIRC/5 and associated modifications). PSAs require the additional step of coordinating with the IAEA and typically are very limited in scope and timeframe; the proposed Agreement would establish a broader, longer-term framework for direct cooperation between the United States and Mexico.

The United States, Mexico, and the IAEA have entered into three PSAs through which the United States provides Mexico with fuel and project support for its nuclear research and power reactors. The first PSA, supporting the TRIGA Mark III research reactor, entered into force in 1963 (INFCIRC/52) and was updated in 1972 (INFCRC/52/Add. 1). The second PSA, supporting the Laguna Verde nuclear power plant, Unit 1, entered into force in 1974 (INFCIRC/203). Should the proposed Agreement enter into force, fuel and technical support for these reactors would continue to be supplied under the respective PSAs, while future projects, including a possible expansion of the Laguna Verde nuclear power plant, would be supported under the proposed Agreement.

The United States worked with Mexico and Canada to fulfill a commitment made by the Mexican Government at the 2010 Nuclear Security Summit to replace the highly enriched uranium fuel at its TRIGA Mark III research reactor with low enriched uranium to eliminate highly enriched uranium fuel in Mexico. The work was carried out under a third PSA (INFCIRC/825) and a 2010 trilateral arrangement among the United States, Mexico, and Canada. This cooperative effort was completed in 2012, with the United States taking responsibility for the highly enriched uranium fuel.

There is also significant bilateral cooperation between the United States and Mexico regarding nuclear security. Mexico and the United States have cooperated since 2011 to enhance the security of medical, industrial, and research facilities where radioactive category I and II sources are housed, including improvements to physical security infrastructure and in training. Along with Canada and the United States, Mexico monitors radiation sources in transit.

Furthermore, Mexico has partnered with the Department of State's Export Control and Related Border Security Program and the Department of Energy's International Nonproliferation Export Control Program to develop an extensive export enforcement training program for Mexico's law enforcement community and collaborated on a range of export control activities in the areas of legal and regulatory development, licensing, and industry compliance. With U.S. assistance, Mexico created an interagency forum to train specialists in export controls and the identification of sensitive materials and has begun training specialists in other Latin American countries.

### C. Cooperation with Other Countries and Organizations

In addition to its agreements with the United States and the IAEA, Mexico has established relationships with other advanced nuclear powers, including Canada, Germany, and Russia. In 2013, Mexico and Russia signed an agreement for peaceful nuclear cooperation in which Russia pledged to provide, *inter alia*, training, education, radioisotopes production, and fuel for both research and power reactors.

Mexico has sought to improve its nuclear power program through participation in the IAEA's Technical Cooperation (TC) Program. IAEA data indicate that since 1990, Mexico has participated in 58 national TC projects (6 active and 52 completed) and 82 regional and interregional projects (17 active and 65 completed) related to the development and implementation of a nuclear power program, including projects in the areas of nuclear security, nuclear safety, nuclear energy, nuclear fuel, capacity building, and human resources. For example, recently completed projects have facilitated the return to the United States of highly enriched uranium fuel and developed a comprehensive national radiological emergency preparedness and response system. Since 1990, IAEA funding for TC projects relating to Mexico has amounted to approximately \$12 million for national projects and \$73 million for regional and interregional projects (including funding for all participating countries).

In addition to its contributions to the TC Program through the IAEA, the United States has provided approximately \$2 million in specific project support to Mexico since 1990. 113 Mexican participants have attended 60 IAEA training courses in the United States, and 49 Mexican IAEA Fellows have trained in the United States, including 14 funded by the United States.

#### D. Nonproliferation Policies

Mexico has a strong track record on nonproliferation and has consistently reiterated its commitment to nonproliferation. It ratified the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1969, the Biological Weapons Convention in 1974, and the Chemical Weapons Convention in 1994. Mexico has been a vocal and active participant in the NPT review conferences and preparatory committees. Mexico signed and ratified the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (the Treaty of Tlatelolco) in 1967 and continues to host its implementing body, the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean in Mexico. Mexico has a comprehensive safeguards agreement with the IAEA in connection with the NPT and the Treaty of Tlatelolco that has been in force since 1973 and an Additional Protocol with the IAEA, which entered into force in 2011.

Mexico ratified the Comprehensive Nuclear-Test-Ban Treaty, and is a party to the Convention on Nuclear Safety, the Convention on the Physical Protection of Nuclear Materials and Nuclear Facilities, and the International Convention for the Suppression of Acts of Nuclear Terrorism. Mexico has been an active participant in international nuclear security efforts, attending all four Nuclear Security Summits.

Mexico has also demonstrated its commitment to the fight against nuclear terrorism, including through its support for the Global Initiative to Combat Nuclear Terrorism (GICNT). Among other activities, it hosted the 2013 GICNT Plenary and a 2014 workshop and field training exercise for the Nuclear Detection Working Group. On December 17, 2012, Mexico joined the Group of Eight Global Partnership against the Spread of Weapons and Materials of Mass Destruction, becoming the first Latin American member state. Mexico is in compliance with United Nations Security Council Resolution 1540 and submits regular update reports to the Committee.

#### E. Export Controls

With U.S. support, Mexico has a strategic trade control system and has been working to harmonize its controls with all four export control regimes. Currently, Mexico is a member of the Nuclear Suppliers Group, the Australia Group, and the Wassenaar Arrangement. It is not a member of the Missile Technology Control Regime, though it has expressed interest in joining the Regime. When Mexico joined the Wassenaar Arrangement and the Nuclear Suppliers Group in 2012, and the Australia Group in 2013, its export controls were fully harmonized with those control lists. Since its acceptance in the Nuclear Suppliers Group, Mexico has become a key interlocutor in working with both the United States and other Nuclear Suppliers Group Participating Governments to achieve consensus on important issues.

Exporters in Mexico are required to apply for an export license for conventional arms and dualuse goods, software, and technologies that may be diverted to the manufacture and proliferation of conventional arms and weapons of mass destruction, including a catch-all provision and items listed on the Nuclear Suppliers Group's control lists. In addition to export licenses, import licenses are required for nuclear materials and fuels, radioactive materials, ionizing radiation equipment, dual-use equipment and goods in the nuclear field, and related technology that may be diverted to the manufacture and proliferation of conventional arms and weapons of mass destruction.

Further, Mexico requires exporters to supply end-use guarantees for goods likely to be transshipped or kept in transit and requires receiving states to provide a formal guarantee that imported goods will not be used in any unsafeguarded activity related to nuclear weapons, nuclear explosive devices, or devices that spread radioactive material or material associated with the nuclear fuel cycle.

#### III. ANALYSIS OF THE PROPOSED AGREEMENT

The proposed Agreement builds on the existing limited cooperation between the United States and Mexico and establishes the conditions for continued U.S. civil nuclear trade with Mexico. In general, as set forth in Article 2 of the proposed Agreement, and in accordance with their respective national laws and license requirements, the parties (directly or through authorized persons) may transfer material, equipment, components, and information under the proposed Agreement. The proposed Agreement provides for cooperation in all relevant areas, including, but not limited to the following.

- Research, development, design, construction, maintenance, and training on operation of nuclear power plants, small and medium-sized nuclear reactors or research reactors, and non-power applications of nuclear energy;
- Manufacture and supply of nuclear fuel elements to be used in nuclear power plants, small and medium-sized nuclear reactors, or research reactors;
- Nuclear fuel cycle activities and materials including radioactive waste management;

- Production and application of radioactive isotopes in industry, agriculture, and medicine;
- Nuclear safety, radiation protection, environmental protection, and emergency preparedness;
- · Nuclear safeguards and physical protection;
- · Exchange of best practices for nuclear policy development; and
- Training and development of human resources in the nuclear sector.

Restricted Data and sensitive nuclear technology may not be transferred under the proposed Agreement. Any special fissionable material transferred could only be in the form of low enriched uranium, with the exception of small quantities of material for use as samples, standards, detectors, targets, or for such other purposes as the parties may agree. The proposed Agreement would also obligate the United States to endeavor to take such actions as are necessary and feasible to ensure a reliable supply of low enriched uranium fuel to Mexico.

The proposed Agreement would have a term of 30 years. It may be terminated by either party prior to the expiration of the 30 years by providing one year's written notice. In the event of termination or expiration of the proposed Agreement, key nonproliferation conditions and controls will continue in effect as long as any material, equipment, or components subject to the proposed Agreement remains in the territory of the party concerned or under its jurisdiction or control anywhere, or until such time as the parties agree that such items are no longer usable for any nuclear activity relevant from the point of view of safeguards. According to the proposed Agreement, advanced consent is required for the parties to retransfer material, equipment, and components transferred under the proposed Agreement and any special fissionable material or other transuranic elements or tritium produced through the use of such material or equipment.

## IV. REQUIREMENTS OF THE ATOMIC ENERGY ACT AND NUCLEAR NONPROLIFERATION ACT

### A. Requirements of the Atomic Energy Act

The provisions of the proposed Agreement satisfy the applicable requirements of the Act. Subsection 123 a. of the Act sets forth nine specific requirements that must be met in most agreements for cooperation. As described below, eight of those requirements are relevant with respect to the proposed Agreement.

#### 1. Application in Perpetuity of Safeguards

Pursuant to subsection 123 a.(1), Mexico, as the "cooperating party," must provide a guaranty:

that safeguards as set forth in the agreement for cooperation will be maintained with respect to all nuclear materials and equipment transferred pursuant [to the agreement], and with respect to all special nuclear material used in or produced through the use of such nuclear materials and equipment, so long as the material or

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equipment remains under the jurisdiction or control of [Mexico], irrespective of the duration of the other provisions in the agreement or whether the agreement is terminated or suspended for any reason

The "safeguards as set forth in the agreement" are found in Article 9 of the proposed Agreement and the Annex and the guaranty that they will be maintained in perpetuity is found in Article 15.

Article 9 stipulates that (a) cooperation under the proposed Agreement shall require the application of IAEA safeguards with respect to all nuclear material in all nuclear activities within the territory, under the jurisdiction, or under the control of Mexico; (b) nuclear material transferred to Mexico pursuant to the proposed Agreement and any nuclear material used in or produced through the use of material, equipment or components so transferred shall be subject to safeguards in accordance with the Agreement between Mexico and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Treaty on the Non-Proliferation of Nuclear Weapons, which entered into force on September 14, 1973, and the Additional Protocol thereto, which entered into force on March 4, 2011; and (c) in the event the Mexico-IAEA safeguards agreement is not being applied, Mexico is to consult with the United States and immediately enter into equivalent arrangements with the IAEA or the United States to establish equivalent safeguards arrangements ("fall-back" safeguards). The requirement for creation of fall-back safeguards is further amplified in the Annex, which establishes certain rights the United States would have in that situation. Those rights would include the right to review in a timely fashion the design of any transferred equipment or relevant facilities, to require maintenance and production of records and reports to assist in ensuring accountability for covered material, and to designate personnel for inspection visits.

Both the primary safeguards requirements and the requirement to create fall-back safeguards would, pursuant to Article 15, continue in effect so long as any material, equipment, or components subject to the proposed Agreement remains in the territory of Mexico or under its jurisdiction or control, unless the parties agree that such material, equipment, or components are no longer usable for any nuclear activity relevant from the point of view of safeguards.

#### 2. Full-Scope Safeguards

Subsection 123 a.(2) requires, as a condition of continued U.S. nuclear supply under an agreement for cooperation, maintenance by the cooperating party – if, like Mexico, it is a "non-nuclear-weapon state" under the NPT– of IAEA safeguards on all nuclear material in all peaceful activities in the state or under its jurisdiction or control. Article 9(1) of the proposed Agreement satisfies this requirement. It provides that "Cooperation under this Agreement shall require the application of IAEA safeguards with respect to all nuclear material in all nuclear activities within the territory of Mexico, under its jurisdiction or carried out under its control anywhere."

#### 3. No Explosive or Military Use

Subsection 123 a.(3) requires agreements to include a guaranty that no nuclear material, equipment, or sensitive nuclear technology, and no special nuclear material produced from such transferred items, will be used for any nuclear explosive device, for research on or development of any nuclear explosive device, or for any other military purpose. Article 8 of the proposed Agreement satisfies this requirement. Like many other U.S. nuclear cooperation agreements, it includes an even broader guaranty than is required under the Act; it applies to any material – not just special nuclear material, but also source material, moderator material, and byproduct material – used in or produced through transferred items or material.

With respect to sensitive nuclear technology or material produced through such technology, a specific guaranty of no explosive or military use is not required because no such technology is authorized to be transferred. Article 3(3) provides that sensitive nuclear technology may not be transferred under the proposed Agreement.

#### 4. Right of Return

Subsection 123 a.(4) requires that agreements stipulate that the United States has a right to require the return of any nuclear materials and equipment transferred pursuant to an agreement for cooperation and any special nuclear material produced through the use of such transferred items in the event of a nuclear detonation by the cooperating party or its termination or abrogation of an IAEA safeguards agreement. Article 11 of the proposed Agreement satisfies this requirement. Indeed, as in many existing agreements, the right to require return set forth in Article 11 applies not only to situations required in the Act, but also to situations in which Mexico does not comply with the storage, retransfer consent, enrichment or reprocessing consent, physical protection, and safeguards requirements of the proposed Agreement. The United States would be required to reimburse Mexico for the fair market value of any returned items, but such a condition is consistent with the Act's requirement. This obligation would also survive termination of the proposed Agreement.

#### 5. Retransfer Consent

Subsection 123 a.(5) requires agreements to include a guaranty that certain transferred items — material, Restricted Data, and production or utilization facilities (i.e., reactors and certain major component parts of reactors) — and any special nuclear material produced through use of such material or facilities will not be transferred to unauthorized persons or beyond the jurisdiction or control of the cooperating party without U.S. consent. According to Article 3(3), Restricted Data cannot be transferred under the proposed Agreement. Article 5 of the proposed Agreement includes the necessary guaranty for all other required items.

#### 6. Physical Security

Subsection 123 a.(6) requires agreements to include a guaranty that "adequate physical security" will be maintained with respect to any nuclear material transferred pursuant to an agreement for cooperation and any special nuclear material used in or produced through the use of nuclear

material, production facility, or utilization facility transferred. The term "adequate physical security" is not defined in section 123, but section 127(3) of the Act says that physical security measures shall be deemed adequate if they "provide a level of protection equivalent to that required by the applicable regulations." The Nuclear Regulatory Commission, in regulations set forth at 10 C.F.R. §110.44, requires that physical security measures in recipient countries provide protection at least comparable to the current IAEA recommendations, published at INFCIRC/225/Revision 5.

Article 7 of the proposed Agreement meets this requirement. It requires maintenance of adequate physical protection with respect to transferred nuclear material and equipment as well as special fissionable material used in or produced from it, and further sets forth that compliance requires application of measures in accordance with levels at least equivalent to the IAEA INFCIRC/225/Revision 5 recommendations and any subsequent revisions accepted by the parties. Moreover, it requires measures to be in accordance with the provisions of the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities and any subsequent amendments to that Convention that enter into force for both parties.

#### 7. Enrichment/Reprocessing/Alteration Consent

Subsection 123 a.(7) requires a guaranty that no material transferred pursuant to the proposed Agreement or used in or produced through the use of any material, production facility, or utilization facility transferred pursuant to the proposed Agreement "will be reprocessed, enriched or (in the case of plutonium, uranium 233, or uranium enriched to greater than twenty percent in the isotope 235, or other nuclear materials that have been irradiated) otherwise altered in form or content without the prior approval of the United States." This requirement is met by Article 6 of the proposed Agreement.

For enrichment, Article 6 establishes that uranium transferred pursuant to the proposed Agreement or used in or produced through transferred material or equipment shall not be enriched unless the parties agree. (As in all other U.S. agreements for peaceful nuclear cooperation, the enrichment rule specifies uranium rather than "any material" because in common usage the term "enrichment" refers only to the increase of the isotope uranium 235 beyond the amount that exists in nature.)

For reprocessing, Article 6 establishes that material transferred pursuant to the proposed Agreement and material used in or produced through use of transferred material or equipment shall not be reprocessed unless the parties agree.

Finally, with respect to alteration in form or content, Article 6 provides that plutonium, uranium 233, highly enriched uranium, and irradiated source or special fissionable material transferred pursuant to the proposed Agreement or used in or produced through the use of transferred material or equipment, shall not be otherwise altered in form or content without agreement of the parties except by irradiation or further irradiation.

#### 8. Storage

Subsection 123 a.(8) requires agreements to include a guaranty that specified nuclear materials – plutonium, uranium 233, and highly enriched uranium – transferred under the proposed Agreement or recovered from nuclear material that was transferred or used in transferred equipment will only be stored in facilities approved in advance by the United States. Article 5(1) of the proposed Agreement contains this guaranty.

#### 9. Sensitive Nuclear Technology

Subsection 123 a.(9) addresses the need for a guaranty applicable to certain situations that may result when sensitive nuclear technology is transferred pursuant to an agreement for cooperation. This requirement is not applicable to the proposed Agreement because, according to Article 3(3), sensitive nuclear technology shall not be transferred under the proposed Agreement.

### B. Requirements of the Nuclear Non-Proliferation Act

The provisions of the proposed Agreement satisfy the applicable requirements of the NNPA. Sections 402 and 407 of the NNPA address the content of agreements for peaceful nuclear cooperation.

#### 1. Major Critical Components

Section 402(b) of the NNPA precludes the transfer under an agreement for cooperation of component parts determined to be essential to the operation of a uranium enrichment, nuclear fuel reprocessing, or heavy water production facility unless the agreement specifically designates such components as items to be exported. Article 4(1) of the proposed Agreement specifies that such "major critical components" shall not be transferred.

#### 2. Environment

Section 407 of the NNPA urges the inclusion in agreements for cooperation of provisions for cooperation in protecting the environment from radioactive, chemical, or thermal contamination arising from peaceful nuclear activities. Article 12(2) of the proposed Agreement provides for consultation about such environmental implications and cooperation in protection of the international environment as well as in related matters of health and safety. In addition, the preamble to the proposed Agreement includes a provision indicating that the parties are mindful that peaceful nuclear activities must be undertaken with a view to protecting the international environment from radioactive, chemical, and thermal contamination.

The proposed Agreement thus satisfies all the substantive requirements specified for agreements for cooperation by the Act and the NNPA.

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#### V. CONCLUSION

Entry into force of the proposed Agreement will create a framework for mutually beneficial civil nuclear cooperation between the two countries and provide an avenue for continued collaboration on nuclear nonproliferation goals.

On the basis of the analysis in this NPAS and all pertinent information of which it is aware, the Department of State has arrived at the following assessment and conclusions.

- 1. The safeguards and other control mechanisms and the peaceful use assurances in the proposed Agreement are adequate to ensure that any assistance furnished thereunder will not be used to further any military or nuclear explosive purpose.
- 2. The proposed Agreement meets all the legal requirements of the  $\mbox{Act}$  and the  $\mbox{NNPA}$ .
- 3. Execution of the proposed Agreement would be compatible with the nonproliferation program, policy, and objectives of the United States.





#### MEMORANDUM FOR THE PRESIDENT

FROM:

Rex W. Tillerson Secretary of State

Rick Perry Rick Perry
Secretary of Energy

SUBJECT: (U) Proposed Peaceful Nuclear Cooperation Agreement with Mexico

- (U) The United States and Mexico have negotiated a proposed Agreement for Cooperation in Peaceful Uses of Nuclear Energy (the Agreement). If you so authorize, the Agreement will be signed and, in accordance with subsections 123 b. and d. of the Atomic Energy Act of 1954, as amended (the Act), be sent to lie before Congress for review for 90 days of continuous session. Unless a joint resolution of disapproval is enacted, the Agreement may then be brought into force.
- (U) The Agreement would permit the transfer of material, equipment, components, and information for nuclear research and nuclear power production, would support U.S. nonproliferation, foreign policy, and commercial interests, and satisfies all requirements of U.S. law. Therefore, pursuant to the Act, we recommend that you determine that the Agreement will promote, and will not constitute an unreasonable risk to, the common defense and security, and that you approve it and authorize its execution.
- (U) A discussion of Mexico's civil nuclear program and its nuclear nonproliferation policies and practices is in the Nuclear Proliferation Assessment Statement (NPAS) and the classified annex to the NPAS submitted separately. The Director of National Intelligence is submitting separately an addendum to the NPAS on Mexico's export control system with respect to nuclear-related matters. The Nuclear Regulatory Commission also is submitting its views separately.



## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 28, 2017

The President The White House Washington, DC 20500

Dear Mr. President:

In accordance with the provisions of Section 123 of the Atomic Energy Act of 1954, as amended, the U.S. Nuclear Regulatory Commission reviewed the proposed Agreement between the Government of the United States of America and the Government of the United Mexican States for Cooperation in Peaceful Uses of Nuclear Energy. It is the view of the Commission that the proposed Agreement includes all of the provisions required by law and provides a sufficient framework for continued civilian nuclear cooperation between the United States and the United Mexican States. Therefore, the Commission recommends that you make the requisite positive statutory determination, approve the proposed Agreement, and authorize its execution.

Respectfully,

Kristine L. Svinicki